

ITEM 620.12M
ITEM 620.14M

PRECAST CONCRETE GABIONS
PRECAST CONCRETE GABION CAP

DESCRIPTION

Work covered under this specification shall include the furnishing and installation of precast concrete gabions and precast concrete gabion caps as indicated in the contract drawings.

MATERIALS

CONCRETE WALL UNITS

Subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include, but are not limited to, the following:

Kistner Concrete Products, East Pembroke, New York

Units shall be Kast-Block Retaining Wall units as produced by Licensed Manufacturer or equal.

Concrete walls shall have minimum 28 day compressive strength of 27,600kPa. The concrete shall have adequate freeze-thaw protection air 5-9%.

Exterior dimensions shall be uniform and consistent. Maximum dimensional deviations shall be 12 millimeters (not including textured face). Units are required to have an average facial area of 0.07 sq. meters.

Retaining wall units shall provide a minimum of 4.8kN total weight per square meter of wall face area. Fill contained within the units may be considered 80% effective weight.

Exterior face shall be smooth or textured. Color to be selected by ENGINEER from manufacturer's standard line of colors and textures.

BASE MATERIAL

Base material shall consist of crushed stone as shown in the construction drawings. A minimum of 150mm of compacted base is required.

CONTROLLED DENSITY FILL

Controlled density fill shall meet the following criteria:

Mix Design

Cement	60 kg/cm
Fly Ash	180 kg/cm
Aggregate	1630 kg/cm
Water	330 kg/cm

Properties

Slump	250 to 300mm
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CONSTRUCTION DETAILS

EXCAVATION

CONTRACTOR shall excavate the lines and grades shown on the construction drawings. CONTRACTOR shall use caution not to over excavate beyond the lines shown, or to disturb the base elevations beyond those shown.

FOUNDATION SOIL PREPARATION

Foundation soil shall be excavated as required for base and footing dimensions shown on construction drawings, or as directed by the ENGINEER.

Foundation soil shall be examined by the ENGINEER to insure that the actual foundation soil strength meets or exceeds assumed design strength. Soil not meeting the required strength shall be removed and replaced with acceptable material.

BASE

Base material shall be placed as shown on construction drawing with a minimum thickness of 150 millimeters. Top of base shall be located to allow bottom wall units to be buried to proper depths as per wall heights and specifications.

Base materials shall be installed on undisturbed native soils or suitable replacement fills compacted to 95% of standard proctor.

Base materials shall be compacted to provide a level hard surface on which to place first course of units. Compaction shall be with a mechanical plate compactor to 95% of standard proctor.

UNIT INSTALLATION

First course of concrete wall units shall be placed on the prepared base with the raised lip facing out and the front edges tight together. The units shall be checked for level and alignment as they are placed.

Insure that units are in full contact with base. Proper care shall be taken to develop straight lines and smooth curves on base course as per wall layout.

All cavities in and around the base row shall be filled with controlled density fill. Backfill front and back of entire base row to firmly lock in place. Check again for level and alignment. All excess material shall be swept from tops of units.

Install next course of wall units on top of base row. Position blocks to be offset from seams of blocks below. Perfect "running bond" is not essential, but a 75mm average minimum offset is recommended. Check each block for proper alignment and level. Fill

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behind block with select structure fill. Backfill remaining space behind second course with structure fill and compact to 95% of standard proctor.

Lay up each subsequent course in like manner. Repeat procedure to the extent of wall height.

METHOD OF MEASUREMENT

The quantity measured for payment shall be the total number of precast concrete gabions or precast concrete gabion caps installed.

BASIS OF PAYMENT

The unit price bid shall include the cost of furnishing all materials, labor, and equipment necessary to install the precast concrete gabions or precast concrete gabion caps. The cost of furnishing and placing the controlled density fill shall be included in the unit price.

Payment will be made under:

<u>Item No.</u>	<u>Item</u>	<u>Pay Unit</u>
620.12M	Precast Concrete Gabions	EA
620.14M	Precast Concrete Gabion Cap	EA